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AMSAT NEWS SERVICE
ANS-207

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-207 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 207
>From AMSAT HQ KENSINGTON, MD.
July 26, 2015
To All RADIO AMATEURS
BID: $ANS-207

AMSAT-NA, AMSAT-DL, and Virginia Tech Announce Potential Phase-3E Opportunity

Virginia Tech has approached the US Government to fly the Phase 3-E space frame into High Earth Orbit (HEO) in order to support scientific payloads as well as serve as an amateur radio satellite. During the AMSAT-DL Annual Meeting on 4 JUL 15, the AMSAT-DL membership approved the concept, agreeing to allow the Phase 3-E space frame that is currently stored in Germany to be shipped to Virginia Tech in the USA for further construction, testing and preparation for eventual launch to HEO should the US Government formally agree to fund such a mission.

Should the project move forward, AMSAT-NA will apply for frequency coordination from the IARU Satellite Advisor and satellite licensing from the FCC as the satellite's initial operator.

Stay tuned to the AMSAT-DL Journal, the AMSAT-NA Journal, and the

AMSAT-NA News Service for further developments and details as they become known.

[ANS thanks AMSAT-NA, AMSAT-DL, and Virginia Tech for the above information]

AMSAT Awards Update

Here are our newest award recipients and quite a good batch we have this time.

The following have entered into the Satellite Communicators Club for making their first satellite QSO.

Andrew Chaloupka, KB9WHV
Lesley Swann, KM4BKO
Joseph Kornowski, KB6IGK
Bill Dillon, KG5FQX

AMSAT Communication Achievement Award

Toralf Renkwitz, DJ8MS #563
Steve Kristoff, AI9IN #564

AMSAT Sexagesimal Award

Toralf Renkwitz, DJ8MS #167
David Webb, KB1VPH #168

AMSAT Century Award

David Webb, KB1PVH #43
Paul Stoetzer, N8HM #44

AMSAT South Africa Communication Achievement Award

Toralf Renkwitz, DJ8MS #US191
Steve Kristoff, AI9IN #US192

AMSAT Robert W. Barbee Jr., W4AMI Satellite Operator Achievement Award for 1000 contacts

Michael McCoy, KC9ELU #83 with 2000, 3000, 4000 endorsements

AMSAT Robert W. Barbee Jr., W4AMI Satellite Operator Achievement Award for 5000 contacts

Michael McCoy, KC9ELU #32

Bruce Paige, KK5DO
AMSAT Director Contests and Awards

To see all the awards visit http://www.amsat.org or http://www.amsatnet.com/awards.html

[ANS thanks Bruce KK5DO for the above information]

Request for help with SPROUT Telemetry Collection

Students from Japan's Nihon University are requesting help gathering telemetry from the SPROUT satellite

SPROUT was launched at May 24, 2014 from Tanegashima Space Center in Japan.

There are 3 main missions in SPROUT.

·Deployment demonstration of inflatable membrane structure.
·Demonstration of attitude determination and control technology for several kilogram class nano-satellite.
·Upbringing of human resources of a space sector

For more information
http://sat.aero.cst.nihon-u.ac.jp/sprout-e/

An English document describing SPROUT's FM Telemetry Data Format can be found at
http://tinyurl.com/ANS207-SPROUT

The students at Nihon University have deployed the demonstration of inflatable membrane structure. They find it necessary to collect as much data as possible to get information on the satellite. They are requesting reception cooperation from anyone who has the means of colecting the data, specifically mebers of AMSAT and amateur radio satellite enthusiasts.

If you would like to assist contact, cssu12036 (at) g.nihon-u.ac.jp for more information.

[ANS thanks Nihon University Students for the above information]

QIKCOM-2 Satellite messages

In a message to the AMSAT-BB on July 22 Bob Bruninga WB4APR, invites proposed standard messages for the next APRS Satellite:

Bob writes, "Our next QIKCOM-2 APRS satellite will accept 2 digit uplink DTMF messages to be spoken on the downlink. We have already programmed all of the ARRL standard radio grams and emergency messages.

But there is room for more. So think.... What kind of message would you want to send (that is not included in the existing ones) from your HT out in the wilderness. At a hamfest? or any other HAM Radio event or opportunity. Keep them simple and of the same order of length as the existing ones.

The existing ones are listed here: http://nts.ema.arrl.org/node/30

But the implementation cannot include blanks for fill-in like the

regular ones. But any sentence that stands alone can work.

Just thought I'd open it up. Plenty of RAM and only 1 week before delivery...

Serious considerations only."

To clarify some thought processess Bob added in a subsequent follow-up,

"Well, took a few moments and here are some of my ideas. I just realized I can allow a single digit modifier, so the digit can go from 0 to 8.

Demonstrating APRStt at Hamfest
Demonstrating APRStt to friends
I am on schedule.
I may be delayed N hours
I may be delayed N days
I may be early N hours
I May be early N days
I may quit early N stops
I may go farther N stops
We are camping and enjoying it greatly.
We are hiking and enjoying it greatly.
We are sailing and enjoying it greatly
Call me on my cell
Call my cell on the hour.

Or there can maybe be 1-to-8 different whole word modifiers too.
Like:
Please Send ___ (Money, food, water, supplies, shoes, sleeping bag, blanket,fuel)

We are operating on ___ power (Solar, wind, battery, generator, emergency)
We are staying with ____ (Mom, dad, sister, brother, uncle, aunt,friends)
Please pass to ____ (Mom, dad, sister, brother, uncle, aunt,friends)

Just thinkin..."

[ANS thanks Bob, WB4APR, for the above information]

NEON - Upcoming NASA Education Events For Your Attention

NEON - NASA Educators Online Network

Free NASA STEM Education Webinars -- NASA Educator Professional Development

Audience: In-service, Pre-service, Home School and Informal Educators

+ July 27, 2015, at 4:00 p.m. EDT: Exploring Strange New Worlds Series: Exoplanets and Kepler Mission (Grades 4-8) - Celebrate The centuries-old quest for other worlds like our Earth has been rejuvenated by the intense excitement and popular interest surrounding the discovery of hundreds of planets orbiting other stars. There is now clear evidence for substantial numbers of the three types of exoplanets; gas giants, hot super-Earths in short

period orbits, and ice giants. During this webinar, teachers will learn to use tools scientists use to determine planet characteristics, learn about the mission and explore and interpret data from the mission. Register online to participate. https://www.etouches.com/133574

+ July 28, 2015, at 6:00 p.m. EDT: ISS Across the Curriculum: Social Studies and Geography in Space (Grades 4-8) - The International Space Station (ISS) is not just a science and math mission. It is a unique, orbiting laboratory that travels around the world and across your curriculum. This webinar will explore how the ISS can also be integrated into your social studies and geography curriculum with NASA inquiry lessons, online resources and teaching strategies. Let the ISS bring space and the world around us together in your classroom. Register online to participate. https://www.etouches.com/129777

+ July 29, 2015, at 6:30 p.m. EDT: Art and the Cosmic Connection (Grades K-16) - Celebrate New Horizons arrival at Geology meets art! Let you inner geologist use art to recreate craters, mountains, rivers, wind driven landscapes and more. Learn to read planetary images as well as Earth images. Meets NGSS for Earth Place in the Universe, Earth Systems, and with Social Studies integrations. Register online to participate. https://www.etouches.com/134190

+ July 30, 2015, at 4:00 p.m. EDT: Rockets 2 Racecars: Session 4 - Educators Go Green (Grades 3-9) - Get your students revved up about science, technology, engineering and mathematics with NASA's Rockets 2 Racecars (R2R) STEM Education webinar series! In this webinar you will have access to various solar and engineering activities for the classroom and will discover various solar energy uses in space as well as on planet Earth. Join NASA Specialists to discuss how NASA utilizes the power of the Sun in our missions, such as the International Space Station and Mars Exploration Rovers, as well as how Pocono Raceway uses solar energy at the Pocono Raceway track! This webinar is guaranteed to brighten your day! Register online to participate. https://www.etouches.com/133233

For the NASA STEM Educator Professional Development webinar schedule, go to: http://www.txstate-epdc.net/events/

[ANS thanks NEON - NASA Educators Online Network for the above information]

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73 on 73 Awards #21-#26

Several 73 on 73 Awards have been recently issued. Congratulations to all!

#21 - Kiyosi Hasegawa, JA3FWT
#22 - Mariusz Kocot, SQ9MES
#23 - Hector Luis Martinez, W5CBF
#24 - George Carr, WA5KBH
#25 - Michel Ribot, F6GLJ
#26 - Paul Stoetzer, N8HM (application reviewed and award issued by W5PFG)

For more information on the award see http://amsat-uk.org/funcube/73-on-73-award/

[ANS thanks Paul N8HM for the above information]

ARISS News

+ A Successful contact was made between [Entity, City, State, Country] and Astronaut [NAME, CALLSIGN] using Callsign [CALLSIGNE. The contact began [YEAR, Month, Date Time] UTC and lasted about nine and a half minutes. Contact was[direct/telebridge] via K6DUE. ARISS Mentor was KA3HDO.

Upcoming ARISS Contact Schedule

United Space School, Seabrook, TX 12:52 UTC July 28

An International Space Station school contact has been planned with participants at United Space School, Seabrook, TX on 28 July. The event is scheduled to begin at approximately 12:52 UTC. It is recommended that you start listening approximately 10 minutes before this time.The duration of the contact is approximately 9 minutes and 30 seconds. The contact will be a telebridge between NA1SS and W6SRJ. The scheduled astronaut is Kimiya Yui KG5BPH
The contact should be audible over the west coast of the U.S. Interested parties are invited to listen in on the 145.80 MHz downlink. The contact is expected to be conducted in English.

The United Space School is the premier educational program hosted by the Foundation for International Space Education (FISE). For two weeks each summer, FISE invites approximately 50 students from 23 different countries to the Clear Lake, Texas area to introduce them to aspects of working in the space sciences. During their stay, the students work together in teams to assemble a manned mission to Mars, utilizing knowledge gained from guest lecturers and interactive field trips. The Foundation for International Space Education Board of Directors has two head teachers and five team mentors to assist the students in their day-to-day activities. United Space School culminates in a project presentation, in which the students present their final project to a panel of industry experts and the public. Upon successful completion of their final project presentation, the students are awarded a graduation certificate.

Participants will ask as many of the following questions as time allows:

1. How has your understanding of the universe changed now that you are seeing it from space?
2. What do you think about the plans of some multi-billion dollar investors to mine raw materials on asteroids and satellites?
3. If you were in an emergency situation inside the ISS where an ammonia leak is quite high and the hatches don't work, what would you propose as escape route to save you and your team, and why?
4. What is the most interesting experiment to perform, and why?
5. Do you see the speed of space travel progressing much further than the point it's at now (within our own solar system)?
6. When you return to Earth what do you think you will miss most about the Space Station?
7. What are your expectations of the manned trip to Mars?
8. Isn't the NanoRacks deployer a cool temperature when it's actually working?
9. How do you maintain a natural sleep pattern aboard the ISS?

10. What were the steps you took to become an astronaut? Do you have any advice for those of us who wish to go into space?
11. What do you think the biggest challenge to the space industry today, besides budget?
12. In terms of hardware, if you could have one thing installed on the ISS, what would it be?
13. What went through your mind while listening to the final countdown before lift-off?
14. How does the ISS keep away from space junk?
15. What are the first effects that you feel in zero gravity?
16. What was a favorite experience of yours while in space school?
17. How many meals do you eat in a day, and has your appetite changed at all?
18. Is moving around in microgravity conditions always fun, or does it get uncomfortable and annoying?
19. What do you think the most important decision you made that put you on the path to becoming an astronaut?
20. Have you ever seen anything weird in space you couldn't explain?
21. What planet would you like to investigate more, aside from Mars?

Next planned event:

23rd World Scout Jamboree Nippon Boy Scout Amateur Radio Club,
Bunkyo-ku, Japan, direct via 8N23WSJ
The ISS callsign is presently scheduled to be NA1SS
The scheduled astronaut is Kjell Lindgren KO5MOS
Contact is a go for: Fri 2015-07-31 11:26 UTC

PLEASE CHECK THE FOLLOWING FOR MORE INFORMATION ON ARISS UPDATES:

Visit ARISS on Facebook. We can be found at Amateur Radio on
the International Space Station (ARISS).

To receive our Twitter updates, follow @ARISS_status

Exp. 44 is now on orbit. Welcome aboard!
Oleg Kononenko RN3DX
Kimiya Yui KG5BPH
Kjell Lindgren KO5MOS

>From 2015-12-20 to 2016-01-04, there will be no US Operational
Segment (USOS) hams on board ISS. So any schools contacts during
this period will be conducted by the ARISS Russia team.

ARISS is always glad to receive listener reports for the above
contacts.
ARISS thanks everyone in advance for their assistance. Feel free to
send your reports to aj9n(a)amsat.org or aj9n(a)aol.com.

[ANS thanks ARISS, Charlie AJ9N and David AA4KN for the above
information]

Satellite Shorts From All Over

+ On July 22, 1962 the first live public trans-Atlantic TV broadcast was relayed by Telstar 1, a communications satellite that had been launched two weeks earlier. The broadcast featured CBS's Walter Cronkite and NBC's Chet Huntley in New York and the BBC's Richard Dimbleby in Brussels. Later that same day the satellite relayed the first telephone call to be transmitted through space. Although it is

no longer fully functional, Telstar 1 is still in orbit around Earth.

https://youtu.be/xdaHYAReYkg

+ What does it take to test, build and launch a compact (yet highly sophisticated) satellite into orbit? U-M students explain in this behind-the-scenes look at U-M's latest CubSat:

http://tinyurl.com/UMich-Cubesat

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AMSAT User Services and the Editors of the AMSAT New Service pass on our condolences to ANS Weekly Co-Editor Joe Spier K6WAO and his family on the death of Joe's mother this week.

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, KC8YLD
kc8yld at amsat dot org